

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-25 are pending. No claim amendments are presented, thus no new matter is presented.

In the outstanding Official Action, Claims 1, 2, 4 and 5 were rejected under 35 U.S.C. §103(a) as unpatentable over Epstein (U.S. Patent 4,490,355) in view of Balcha et al. (U.S. Patent 6,233,589, hereinafter "Balcha"); Claim 3 was rejected under 35 U.S.C. §103(a) as unpatentable over Epstein and Balcha in view of Bernecker (U.S. Patent 5,435,599); Claims 6-11 were rejected under 35 U.S.C. §102(e) as anticipated by Aucsmith (U.S. Patent 5,940,513, hereinafter "Aucsmith"); and Claims 12-25 were rejected under 35 U.S.C. §103(a) as unpatentable over Linnartz (U.S. Patent 6,209,092) in view of Balcha.

The undersigned appreciatively acknowledges the courtesy extended by Examiner Moorthy by holding a personal interview with the undersigned on February 10, 2004. During the interview, the present independent claims were discussed and Applicant's representatives and Examiner Moorthy agreed that the independent claims patentably define over the applied references. The arguments presented by Applicants representatives are reflected in the discussion, below.

Regarding independent Claims 6 and 9-11, Examiner Moorthy agreed that Aucsmith fails to teach or suggest that the receiving device transmits the check value calculated on the basis of the second data to the transmitter device. With respect to independent Claims 1, 4 and 5, Examiner Moorthy agreed that Epstein fails to teach or suggest transmitting the second data to the receiver device. Regarding independent Claims 6 and 9-11, Examiner Moorthy agreed that Linnartz fails to teach or suggest a communicating means for transmitting the content management data of the content from the receiver device.

The Official Action has rejected Claim 4 under 35 U.S.C. §103(a) as being unpatentable over Epstein in view of Howe. The Official Action cites Epstein as disclosing the Applicants' invention with the exception of a check value which is used to detect whether the second data is tampered with or not. The Official Action cites Balcha as disclosing a hashing function used to detect whether the second data is tampered with or not and states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references to arrive at the Applicants' claims. Applicants respectfully traverse this rejection.

The present application is directed to preventing the unauthorized use of copyrighted data. Specifically, Claim 4 relates to a transmitting method of a transmitter device which transmits first data to a receiver device by driving a recording medium which stores the first data and second data that describes the limitation on the usage of the first data. This transmitting method includes a step of storing a check value calculated on the basis of the second data in the transmitter and an authenticating step of the receiver device which includes transmitting the second data to the receiver device and receiving a check value calculated on the basis of the second data from the receiver device. The receiver device then determines whether the check value of the second data received in the communications step matches the check value of the second data stored in the storing step to detect whether the second data has been tampered with or not.

Claim 4 recites, *inter alia*, a transmitting method, comprising:

“...in an authenticating step of the receiver device, the step of communication for transmitting the second data to the receiver device and for receiving a check value calculated on the basis of the second data from the receiver device...”

Independent Claim 1 recites substantially similar subject matter as Claim 4, but is directed to an alternate statutory class. Therefore, the arguments provided below are also applicable to both Claims 1 and 4.

Epstein describes a method and apparatus for use of a time-dependent watermark for the purpose of copy protection. Epstein describes that a source device produces a ticket and watermark using a first time reference and a hashing function and provides a data stream containing the content, the ticket, the watermark and the first time reference to a receiver device. The receiver device then determines if the first time reference is contained within a time window determined by a second time reference, and when the first time reference is contained within the time window, the receiver compares the ticket to the watermark using the first time reference and the one-way function. Based on this comparison, the receiver device produces a signal indicating the copy protection status of the content.¹

Balcha describes a method and system for reflecting differences between two files. In Balcha's system a base signature file is generated which has a plurality of base bit patterns, each base bit pattern being generated as a function of a portion of data in a first file. A second file containing a plurality of revised bit patterns is generated from a second file and each revised bit pattern is compared to and matches at least one of the base bit patterns. A delta file reflecting the differences between a first file and second file based on the base signature file, the delta signature file, and the second file is created.² In this manner the differences between a base file and a modified file can be determined without the need for a copy of a base file.

The requirements for a *prima facie* case of obviousness are (1) there must be some suggestion or motivation in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation success, and (3) the prior art reference must teach or suggest all the claim limitations. It is respectfully submitted that the

¹ Epstein at Abstract.

² Belcha at Abstract.

outstanding Official Action fails to make a *prima facie* case of obviousness, because Epstein and/or Balcha fail to teach or suggest all the claim limitations.

The Official Action asserts that Epstein discloses a step of communication for transmitting the second data to the receiver device and for receiving a check value calculated on the basis of the second data from the receiver device, as recited in Claim 4. However, Epstein, as described above, relates to a method for one-way watermarking and copy protection of content data. Specifically, Epstein describes that a time reference signal (TD) is a digital representation of the time and date when creation of the ticket and watermark is commenced and this information is transmitted to a reception device.³ Then, a one-way operation, such as a hashing function, is performed on the data by the reception device to derive a physical mark which computed in order to derive the ticket indicating the usage rules for the content data.⁴

Therefore, Epstein describes a one-way transmission of copyright watermark and usage rule information relating to the content data. In contrast, Claim 4 recites a step of communicating second data that describes the limitation on usage of the first data and for receiving a check value calculated on the basis of the second data from the receiver device. Thus, the second data describing a limitation on the usage of the first data is both transmitted from and received at the receiver device. In contrast, Epstein describes only that the transmitter transmits the watermark and ticket information to the receiving device, but at no point discloses or suggests that any such information is transmitted back to the transmission device.

As discussed above, Epstein fails to teach or disclose Applicants' step of communication for transmitting second data to the receiver device and for receiving a check value calculated on the basis of the second data from the receiver device. Likewise, neither

³ Epstein at column 7, line 67 through column 8, line 3.

⁴ Epstein at column 8, lines 21-40.

Balcha nor Bernecker remedy this deficiency and therefore, none of the cited references, either alone or in combination, disclose or suggest Applicants' Claims 1-5 which include the above distinguished limitation by virtue of independent recitation or dependency. Therefore, the Official Action does not provide a *prima facie* case of obviousness with regard to any of these claims.

Accordingly, Applicants respectfully request the rejection of Claims 1-5 under 35 U.S.C. §103 be withdrawn.

The outstanding Official Action asserts that Aucsmith teaches all the elements 6-11. Applicants respectfully traverse this rejection.

Claim 9 recites *inter alia*, a receiving method of a receiver device for receiving first data from a transmitter device, comprising:

“...in the authenticating of the transmitter device, the step of communication for receiving, from the transmitter device, second data that describes a limitation on the usage of the first data and for transmitting a check value calculated on the basis of the second data to the transmitter device...”

Independent Claims 6, 10 and 11 recite substantially similar subject matter as Claim 9, but is directed to an alternate statutory class. Therefore, the arguments provided below are also applicable to Claims 6, 9, 10 and 11.

Aucsmith describes a method of parameterized hash functions for access control of the digital files. Figure 6 of Aucsmith illustrates an overview of the steps performed in his method. Specifically, the receiving device receives an executable program at step 601 and then receives composite key which defines associated rights to be assigned to the executable program in step 602.⁵ The device then performs a keyed cryptographic hash algorithm on the executable program using a private symmetric-key or public asymmetric-key which yields an encrypted keyed hash value which serves as a signature or fingerprint for the executable

⁵ Aucsmith at column 8, lines 43-48.

program as depicted at step 603.⁶ The executable program is then encrypted using the encrypted keyed hash value as a key which yields an executable image at step 604. The executable file is then able to be successfully executed by the reception device.⁷

Claim 9 recites that in the authenticating of the transmitter device the step of communication for receiving, from the transmitter device, second data that describes the limitation on the usage of the first data and for transmitting a check value calculated on the basis of the second data to the transmitter device. As described above, Aucsmith describes only that a composite key and the executable program are transmitted to the reception device and a hash algorithm is performed using the key on the executable file in order to make the executable file accessible to the reception device. However, at no point does Aucsmith describe that the receiver receives from the transmitting device second data that describes limitation on the usage of the first data and transmits a check value calculated on the basis of the second data back to the transmitter device, as recited in Claim 9.

Aucsmith, in a manner similar to Epstein discussed above, performs the data authentication step in one direction by sending the data in the associated copyright information from the transmitter to the receiver, but fails to transmit the second data or a check value calculated on the basis thereof back to the transmitting device. Therefore, Aucsmith fails to teach or suggest the step of communication for receiving, from the transmitter device, second data that describes limitation on usage of the first data and for transmitting a check value calculated on the basis of the second data to the transmitter device, as recited in Claim 9.

Accordingly, Applicants respectfully request that the rejection of Claim 9 under 35 U.S.C. §102 be withdrawn. For substantially the same reasons as given with respect to Claim

⁶ Aucsmith at column 8, lines 48-53.

⁷ Aucsmith at column 8, lines 54-56.

9 Applicants also submit that independent Claims 6, 10 and 11 patentably define over Aucsmith.

Claims 12-25 were rejected under 35 U.S.C. §103 as unpatentable over Linnartz in view of Balcha. The Official Action cites Linnartz as disclosing the Applicants' invention with the exception of its determining means for determining whether said content management data is tampered or not, on the basis of result provided by the comparing means. The Official Action cites Balcha as disclosing this limitation states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references to arrive at the Applicants' claims. Applicants respectfully traverse this rejection.

Claim 24 recites, *inter alia* a method for transmitting a content to a receiver device, comprising:

“...transmitting said content management data of said content
and receiving a check value calculated at a receiver on the basis
of said content management data from said receiver...”

Independent Claims 12, 18 and 25 recite substantially similar subject matter as Claim 24, but is directed to an alternate statutory class. Therefore, the arguments provided below are also applicable to Claims 12, 18, 24 and 25.

Linnartz describes a system for copy protection allowing one generation of copies, also referred to as copy-once.⁸ Linnartz' method is implemented by embedding a watermark in an audio stream including a cryptographic one-way function, and the mark remains with the content during playback but is removed by the consumer recorder.⁹ It should be noted that Linnartz at no point teaches or suggests that such management information is communicated in any manner other than from the transmitter to the receiver, as similarly discussed with regard to Aucsmith and Epstein above with respect to Claims 4 and 9.

⁸ Linnartz at column 4, lines 60-63.

⁹ Linnartz at column 4, lines 60-67.

Claim 24 recites a method for transmitting content which includes storing a check value of a content management data in relation to the content and transmitting the content management data of the content receiving a check value calculated at the receiver on the basis of said content management data from said receiver. Therefore, content management information, and calculations performed thereon are exchanged between the transmitter and receiver. In contrast, Linnartz describes only that the audio content with the embedded watermark and a ticket is verified during each playback and recording, but at no point does Linnartz describe that a check value is transmitted from the receiving device to the transmitting device. Therefore, Linnartz fails to teach or suggest transmitting said content management data of said content and receiving a check value calculated at a receiver on the basis of said content management data from said receiver, as recited in Claim 24.

As discussed above Linnartz fails to disclose or suggest the Applicants' method including the step of transmitting the content management data of the content and receiving a check value calculated at a receiver on the basis of the content management data from the receiver. Likewise, Balcha fails to remedy this deficiency and therefore, none of the cited references either alone or in combination disclose or suggest Applicants' Claims 12-25 which include the above distinguished limitation by virtue of independent recitation or dependency. Therefore, the Official Action does not provide a *prima facie* case of obviousness with regard to any of these claims.

Accordingly, Applicants respectfully request the rejection of Claims 12-25 under 35 U.S.C. §103 be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-25 is patentably distinguishing over the prior art. The present application is therefore believed to be in

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condition for formal allowance and an early and favorable reconsideration of the application
is therefore requested.

Respectfully submitted,

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